



9.0 FIELD OA/QC

9.1 TRIP BLANK ANALYSES

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank was transported to the Site and kept in the field with water samples to be analyzed for TCL VOCs. It should be noted that the trip blank was transported to the laboratory two days after all the samples were submitted to the laboratory and therefore does not reflect possible sample contamination occurring during transport.

A summary of the trip blank analysis results is presented in Table 9. VOCs were not detected at or above the detection limit in the trip blank. It should be noted that the trip blank was analyzed for TCL VOCs which do not include acrolein, acrylonitrile, or chloroethylvinyl ether, all of which are priority pollutant VOCs. Since all three of these compounds were not detected at or above the detection limit in all samples, it is assumed that any possible contamination was negligible in this study.

9.2 FIELD DUPLICATE ANALYSES

In order to assess the analytical and sampling protocol precision, field duplicate samples are collected and submitted "blind" to the laboratory for analysis. Precision is then evaluated based on the RPD values reported.

For the ARC study, sample Dup-1 was a duplicate of sample OW407C. A summary of the field duplicate results and RPD values is presented in Table 10. RPD values less than 20 percent were considered acceptable for all parameters. Note that RPD values could not be calculated for analyses yielding one or more ND results.

9.2.1 VOC Analysis

All RPD values were acceptable, indicating good sample and analytical precision were achieved during this study.

9.2.2 BNA Analysis

All BNA compounds were non-detect in both samples except for the dichlorobenzenes which were present in sample OW407C but non-detect in the duplicate. Since RPD values cannot be calculated for the dichlorobenzene, precision cannot be assessed. All remaining BNA results indicated acceptable sampling and laboratory precision were achieved.

9.2.3 Pesticide/PCB/Dechlorane Plus Analysis

All RPD values were acceptable, indicating that good sampling and analytical precision were achieved during this analysis.

9.2.4 Metals Analysis

Outlying RPD values of 22 and 57 percent were reported for selenium and zinc, respectively. As this could indicate some variability in sampling and/or analytical precision for these analytes, the selenium and zinc results reported for these samples were qualified as estimated (see Table 11). All other RPD values were less than 20 percent, indicating acceptable sampling and analytical precision were achieved for these analytes.

10.0 **CONCLUSION**

Based on the assessment detailed in the foregoing, the data from Recra are acceptable with the specific exceptions and qualifications noted herein.

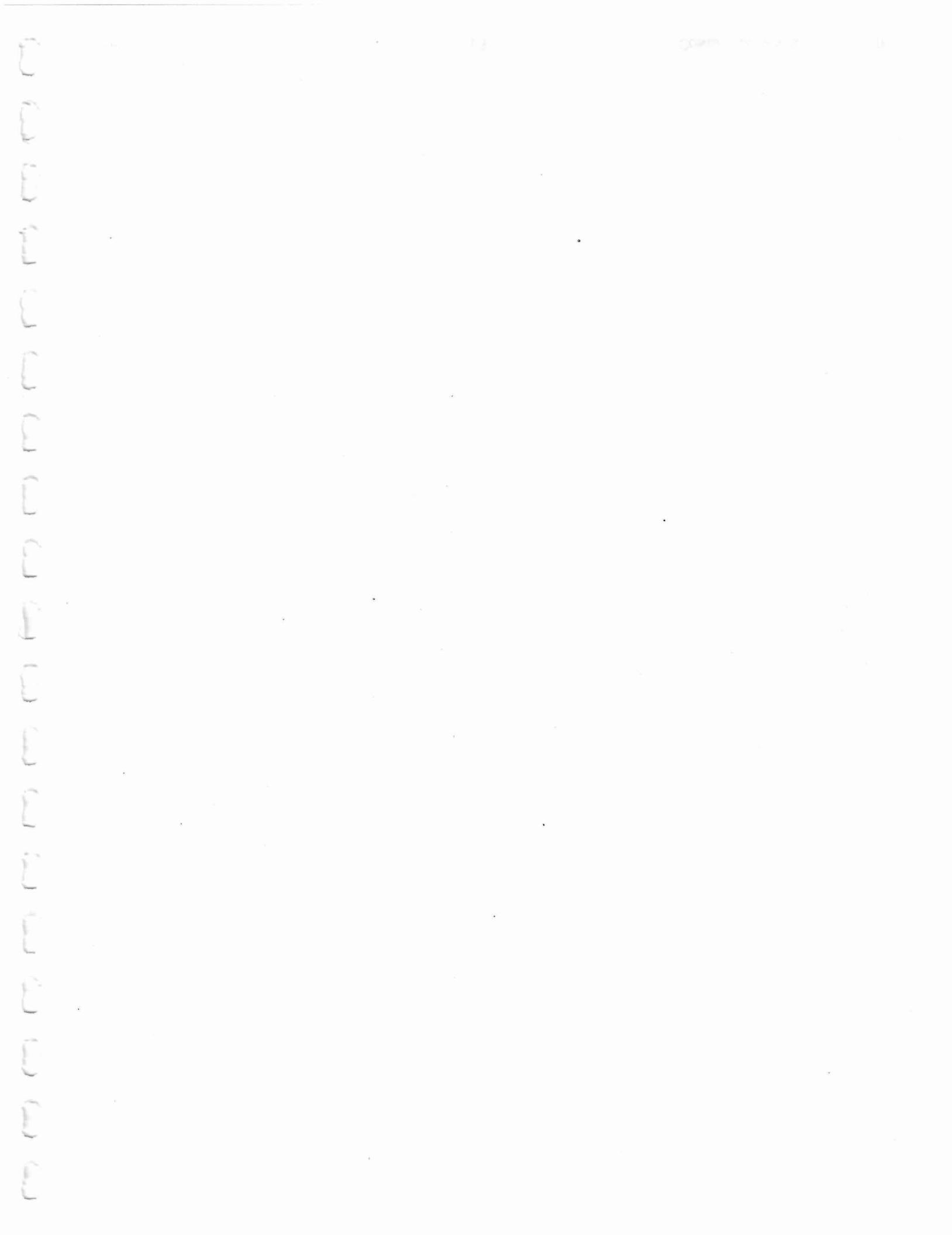


TABLE 1
SUMMARY OF ANALYTICAL METHODOLOGY
AMERICAN REF-FUEL RRF
MARCH 1993

Parameter	Analytical Method
Target Compound List Volatile Organic Compounds	624(2)
Priority Pollutant Volatile Organic Compounds	8240(1)
Priority Pollutant Base/Neutral Acid Extractables	625(2)
Target Compound List Base/Neutral Acid Extractables	8270(1)
Priority Pollutant Pesticides/Polychlorinated Biphenyls Dechlorane Plus	608(2) 8080(1)
Priority Pollutant Metals	6000/7000 Series(1)
Resource Conservation and Recovery Act Metal	6000/7000 Series(1)
Sulfate	9038(1)

Notes:

- (1) Referenced from USEPA SW-846, 3rd Edition, 1986.
- (2) Referenced from USEPA "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", July 1982.

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample ID:</i>	<i>Detection Limits</i>	<i>OW653</i>	<i>OW650</i>	<i>Dup-1 (OW407C)</i>	<i>OW407C</i>
<i>P.P. VOCs by 624 (µg/L)</i>					
Acrolein	400	ND	ND	ND	ND
Acrylonitrile	400	ND	ND	ND	ND
Benzene	4.4	R	ND	48J	48J
Bromodichloromethane	2.2	ND	ND	ND	ND
Bromoform	4.7	ND	ND	ND	ND
Bromomethane	10	ND	ND	ND	ND
Carbon tetrachloride	2.8	ND	ND	ND	ND
Chlorobenzene	6.0	R	8.7	130J	130J
Chloroethane	10	ND	ND	ND	ND
2-Chloroethylvinyl ether	10	ND	ND	ND	ND
Chloroform	1.6	ND	ND	ND	ND
Chloromethane	10	ND	ND	ND	ND
Dibromochloromethane	3.1	ND	ND	ND	ND
1,1-Dichloroethane	4.7	ND	ND	ND	ND
1,2-Dichloroethane	2.8	ND	ND	ND	ND
1,1-Dichloroethene	2.8	ND	ND	ND	ND
1,2-Dichloroethene	1.6	ND	4.6	54J	51J
1,2-Dichloropropane	6.0	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	ND	ND	ND	ND
Ethyl benzene	7.2	ND	ND	ND	ND
Methylene chloride	2.8	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	6.9	ND	ND	ND	ND
Tetrachloroethene	4.1	ND	10	ND	ND
Toluene	6.0	ND	ND	ND	ND
1,1,1-Trichloroethane	3.8	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	ND	ND	ND	ND
Trichloroethene	1.9	ND	7.9	2.6J	ND
Vinyl chloride	10	ND	ND	130J	130J

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample ID:</i>	<i>Detection Limits</i>	<i>OW653</i>	<i>OW650</i>	<i>Dup-1 (OW407C)</i>	<i>OW407C</i>
<i>P.P. BNAs by 625 ($\mu\text{g/L}$)</i>					
Acenaphthene	1.9	ND	ND2.2	ND	ND
Acenaphthylene	3.5	ND3.6	ND4.0	ND	ND
Anthracene	1.9	ND	ND2.2	ND	ND
Benzidine	44	NF45	ND50	ND	ND
Benzo(a)anthracene	7.8	ND8.0	ND8.9	ND	ND
Benzo(b)fluoranthene	4.8	ND4.9	ND5.4	ND	ND
Benzo(k)fluoranthene	2.5	ND2.6	ND2.8	ND	ND
Benzo(g,h,i)perylene	4.1	ND4.2	ND4.6	ND	ND
Benzo(a)pyrene	2.5	ND2.6	ND2.8	ND	ND
Bis(2-chloroethoxy)methane	5.3	ND5.4	ND6.0	ND	ND
Bis(2-chloroethyl)ether	5.7	ND5.8	ND6.5	ND	ND
Bis(2-chloroisopropyl)ether	5.7	ND5.8	ND6.5	ND	ND
Bis(2-ethylhexyl)phthalate	2.5	ND2.6	ND2.8	ND	ND
4-Bromophenyl phenyl ether	1.9	ND	ND2.2	ND	ND
Butylbenzyl phthalate	2.5	ND2.6	ND2.8	ND	ND
4-Chloro-3-methylphenol	3.0	ND3.1	ND3.4	ND	ND
2-Chloronaphthalene	1.9	ND	ND2.2	ND	ND
2-Chlorophenol	3.3	ND3.4	ND3.8	ND	ND
4-Chlorodiphenylether	4.2	ND4.3	ND4.8	ND	ND
Chrysene	2.5	ND2.6	ND2.8	ND	ND
Dibenzo(a,h)anthracene	2.5	ND2.6	ND2.8	ND	ND
1,3-Dichlorobenzene	1.9	14	8.6	ND	7.4
1,2-Dichlorobenzene	1.9	4	69	ND	5.9
1,4-Dichlorobenzene	4.4	30	50	ND	7
3,3'-Dichlorobenzidine	16	ND	ND18	ND	ND
2,4-Dichlorophenol	2.7	ND2.8	ND3.1	ND	ND
Diethyl phthalate	1.9	ND	ND2.2	ND	ND
2,4-Dimethylphenol	2.7	ND2.8	ND3.1	ND	ND
Dimethyl phthalate	1.6	ND	ND1.8	ND	ND
4,6-Dinitro-2-methylphenol	24	ND25	ND22	ND	ND
1,2-Diphenylhydrazine	10	ND	ND11	ND	ND
2,4-Dinitrophenol	42	ND43	ND48	ND	ND
2,4-Dinitrotoluene	5.7	ND5.8	ND6.5	ND	ND
2,6-Dinitrotoluene	1.9	ND	ND2.2	ND	ND
Di-n-butyl phthalate	2.5	ND2.6	ND2.8	ND	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample ID:</i>	<i>Detection Limits</i>	<i>OW653</i>	<i>OW650</i>	<i>Dup-1 (OW407C)</i>	<i>OW407C</i>
<i>P.P. BNAs by 625 ($\mu\text{g/L}$) (Cont'd.)</i>					
Di-n-octyl phthalate	2.5	ND2.6	ND2.8	ND	ND
Fluoranthene	2.2	ND2.3	ND2.5	ND	ND
Fluorene	1.9	ND	ND2.2	ND	ND
Hexachlorobenzene	1.9	ND	ND2.2	ND	ND
Hexachlorobutadiene	0.90	ND0.92	ND1.0	ND	ND
Hexachlorocyclopentadiene	1.0	ND	ND1.1	ND	ND
Hexachloroethane	1.6	ND	ND1.8	ND	ND
Indeno(1,2,3-cd)pyrene	3.7	ND3.8	ND4.2	ND	ND
Isophorone	2.2	ND2.3	ND2.5	ND	ND
Naphthalene	1.6	ND	ND1.8	ND	ND
Nitrobenzene	1.9	ND	ND2.2	ND	ND
2-Nitrophenol	3.6	ND3.7	ND4.1	ND	ND
4-Nitrophenol	2.4	ND2.5	ND	ND	ND
N-nitrosodimethylamine	2.2	ND2.3	ND2.5	ND	ND
N-nitrosodi-n-propylamine	3.3	ND3.4	ND3.8	ND	ND
N-nitrosodiphenylamine	1.9	ND	ND2.2	ND	ND
Pentachlorophenol	3.6	ND3.7	ND4.1	ND	ND
Phenanthrene	5.4	ND5.5	ND6.1	ND	ND
Phenol	1.5	ND	ND1.7	ND	ND
Pyrene	1.9	ND	ND2.2	ND	ND
1,2,4-Trichlorobenzene	1.9	ND	48	ND	ND
2,4,6-Trichlorophenol	2.7	ND2.8	ND3.1	ND	ND
<i>P.P. Pesticides/PCBs by 608 ($\mu\text{g/L}$)</i>					
Aldrin	0.0050	ND	ND0.0054	0.015	ND
alpha-BHC	0.0050	ND	ND0.0054	ND	0.034
beta-BHC	0.0050	ND	ND0.0054	ND	ND
gamma-BHC	0.0050	ND	ND0.0054	ND	ND
delta-BHC	0.0050	ND	ND0.0054	ND	ND
Chlordane	0.050	ND	ND0.054	ND	ND
4,4'-DDD	0.010	ND	ND0.011	ND	ND
4,4'-DDE	0.010	ND	ND0.011	ND	ND
4,4'-DDT	0.010	ND	ND0.011	ND	ND
Dieldrin	0.010	ND	ND0.011	ND	ND
Endosulfan I	0.010	ND	ND0.011	ND	ND
Endosulfan II	0.010	ND	ND0.011	ND	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample ID:</i>	<i>Detection Limits</i>	<i>OW653</i>	<i>OW650</i>	<i>Dup-1 (OW407C)</i>	<i>OW407C</i>
<i>P.P. Pesticides/PCBs by 608 (µg/L) (Cont'd.)</i>					
Endosulfan sulfate	0.010	ND	ND0.011	ND	ND
Endrin	0.010	ND	ND0.011	ND	ND
Endrin aldehyde	0.010	ND	ND0.011	ND	ND
Heptachlor	0.0050	ND	ND0.0054	ND	ND
Heptachlor epoxide	0.0050	ND	ND0.0054	ND	ND
Toxaphene	0.10	ND	ND0.11	ND	ND
Aroclor 1016	0.050	ND	ND0.054	ND	ND
Aroclor 1221	0.10	ND	ND0.11	ND	ND
Aroclor 1232	0.050	ND	ND0.054	ND	ND
Aroclor 1242	0.050	ND	0.26	ND	ND
Aroclor 1248	0.050	ND	ND0.054	ND	ND
Aroclor 1254	0.050	ND	ND0.054	ND	ND
Aroclor 1260	0.050	ND	ND0.054	ND	ND
<i>Dechlorane Plus by 8080 (µg/L)</i>					
Dechlorane plus	0.10	ND	ND	ND	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample ID:</i>	<i>Detection Limits</i>	<i>OW653</i>	<i>OW650</i>	<i>Dup-1 (OW407C)</i>	<i>OW407C</i>
P.P. Metals (mg/L)					
Antimony	0.040	ND	ND	0.0050	ND
Arsenic	0.0040	ND	ND	ND	ND
Beryllium	0.0050	ND	ND	ND	ND
Cadmium	0.0070	ND	ND	ND	ND
Chromium	0.010	ND	ND	ND	0.016
Copper	0.010	ND	0.012	0.018	0.017
Lead	0.0030	ND	0.032	0.003	0.003
Mercury	0.00040	ND	0.0020	ND	ND
Nickel	0.020	ND	0.027	ND	ND
Selenium	0.0050	0.014	ND	0.01J	0.008J
Silver	0.010	ND	ND	ND	ND
Thallium	0.0050	ND	ND	ND	ND
Zinc	0.010	ND	0.11	0.018J	0.01J

Notes:

ND Non-detect at or above the detection limit.

ND Non-detect at or above x µg/L or mg/L.

J Associated value is estimated.

R Data was qualified as unusable. Values were outside linear calibration limits.

Key:

P.P. Priority Pollutant

VOCs Volatile Organic Compounds

BNAs Base/Neutral Acid Extractables

PCBs Polychlorinated Biphenyls

TCL Target Compound List

RCRA Resource Conservation and Recovery Act

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample I.D.:</i>	<i>Detection Limits</i>	<i>FD-1</i>
TCL VOCs by 8240 ($\mu\text{g}/\text{L}$)		
Acetone	10	ND
Benzene	5	R
Bromodichloromethane	5	ND
Bromoform	5	ND
Bromomethane	10	ND
2-Butanone	10	ND
Carbon disulfide	5	ND
Carbon tetrachloride	5	ND
Chlorobenzene	5	R
Chloroethane	10	ND
Chloroform	5	ND
Chloromethane	10	ND
Dibromochloromethane	5	ND
1,1-Dichloroethane	5	ND
1,2-Dichloroethane	5	ND
1,1-Dichloroethene	5	ND
1,2-Dichloroethene	5	ND
1,2-Dichloropropane	5	ND
cis-1,3-Dichloropropene	5	ND
trans-1,3-Dichloropropene	5	ND
Ethyl benzene	5	ND
2-Hexanone	10	ND
Methylene chloride	5	ND
4-Methyl-2-pentanone	10	ND
Styrene	5	ND
1,1,2,2-Tetrachloroethane	5	ND
Tetrachloroethene	5	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

Sample I.D.:	Detection Limits	FD-1
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TCL VOCs by 8240 ($\mu\text{g}/\text{L}$) (cont.)

Toluene	5	ND
1,1,1-Trichloroethane	5	ND
1,1,2-Trichloroethane	5	ND
Trichloroethene	5	ND
Vinyl acetate	10	ND
Vinyl chloride	10	ND
Total Xylenes	5	ND

TCL BNAs by 8270 ($\mu\text{g}/\text{L}$)

Acenaphthene	10	ND
Acenaphthylene	10	ND
Anthraene	10	ND
Benzo(a)anthracene	10	ND
Benzo(b)fluoranthene	10	ND
Benzo(k)fluoranthene	10	ND
Benzo(g,h,i)perylene	10	ND
Benzo(a)pyrene	10	ND
Benzoic acid	50	ND
Benzyl alcohol	10	ND
Bis(2-chloroethoxy)methane	10	ND
Bis(2-chloroethyl)ether	10	ND
Bis(2-chloroisopropyl)ether	10	ND
Bis(2-ethylhexyl)phthalate	10	ND
4-Bromophenyl phenyl ether	10	ND
Butylbenzyl phthalate	10	ND
4-Chloroaniline	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chloronaphthalene	10	ND
2-Chlorophenol	10	ND
4-Chlorodiphenylether	10	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample I.D.:</i>	<i>Detection Limits</i>	<i>FD-1</i>
TCL BNAs by 8270 ($\mu\text{g/L}$)		
Chrysene	10	ND
Dibenzo(a,h)anthracene	10	ND
Dibenzofuran	10	ND
Di-n-butyl phthalate	10	ND
1,2-Dichlorobenzene	10	10
1,3-Dichlorobenzene	10	29
1,4-Dichlorobenzene	10	28
3,3'-Dichlorobenzidine	20	ND
2,4-Dichlorophenol	10	ND
Diethyl phthalate	10	ND
2,4-Dimethylphenol	10	ND
Dimethyl phthalate	10	ND
4,6-Dinitro-2-methylphenol	50	ND
2,4-Dinitrophenol	50	ND
2,4-Dinitrotoluene	10	ND
2,6-Dinitrotoluene	10	ND
Di-n-octyl phthalate	10	ND
Fluoranthene	10	ND
Fluorene	10	ND
Hexachlorobenzene	10	ND
Hexachlorobutadiene	10	ND
Hexachlorocyclopentadiene	10	ND
Hexachloroethane	10	ND
Indeno(1,2,3-cd)pyrene	10	ND
Isophorone	10	ND
2-Methylnaphthalene	10	ND
2-Methylphenol	10	ND
4-Methylphenol	10	ND
Naphthalene	10	ND
2-Nitroaniline	50	ND
3-Nitroaniline	50	ND
4-Nitroaniline	50	ND
Nitrobenzene	10	ND
2-Nitrophenol	10	ND
4-Nitrophenol	50	ND
N-nitrosodiphenylamine	10	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample I.D.:</i>	<i>Detection Limits</i>	<i>FD-1</i>
TCL BNAs by 8270 ($\mu\text{g/L}$) (Cont'd.)		
N-nitrosodi-n-propylamine	10	ND
Pentachlorophenol	50	ND
Phenanthrene	10	ND
Phenol	10	ND
Pyrene	10	ND
1,2,4-Trichlorobenzene	10	ND
2,4,5-Trichlorobenzene	50	ND
2,4,6-Trichlorophenol	10	ND
Dechlorane Plus by 8080 ($\mu\text{g/L}$)		
Dechlorane Plus	0.1	ND

TABLE 2
ANALYTICAL RESULTS SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample I.D.:</i>	<i>Detection Limits</i>	<i>FD-1</i>
RCRA Metals (mg/L)		
Aluminum	0.1	ND
Arsenic	0.004	ND
Barium	0.02	0.03
Cadmium	0.007	ND
Chromium	0.01	ND
Copper	0.01	ND
Lead	0.003	ND
Mercury	0.0002	ND
Selenium	0.004	0.007
Silver	0.01	ND
Zinc	0.01	ND
Sulfate (mg/L)		
Sulfate	1.0	1800

Notes:

- ND Non-detect at or above the detection limit.
J Associated value is estimated.
R Data was qualified as unusable. Values were outside linear calibration limits.

Key:

- P.P. Priority Pollutant
VOCs Volatile Organic Compounds
BNAs Base/Neutral Acid Extractables
PCBs Polychlorinated Biphenyls
TCL Target Compound List
RCRA Resource Conservation and Recovery Act

TABLE 3
SAMPLE HOLDING TIME SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

Sample ID	Analyses	Date Collected	Date Extracted	Date Analyzed (1)	Holding Time from Collection to Extraction (days)	Holding Time from Extraction to Analysis (days)
OW653	P.P. VOCs	03/08/93		03/09/93		1
	P.P. BNAs	03/08/93	03/10/93	03/15/93	2	7
	P.P. Pest/PCBs	03/08/93	03/10/93	03/13/93	2	5
	Dechlorane Plus	03/08/93	03/10/93	03/11/93	2	3
	P.P. Metals	03/08/93		03/16/93		8
OW407C	P.P. VOCs	03/09/93		03/11/93		2
	P.P. BNAs	03/09/93	03/15/93	03/22/93	6	13
	P.P. Pest/PCBs	03/09/93	03/12/93	03/16/93	3	7
	Dechlorane Plus	03/09/93	03/15/93	03/17/93	6	8
	P.P. Metals	03/09/93		03/16/93		7
OW650	P.P. VOCs	03/09/93		03/11/93		2
	P.P. BNAs	03/09/93	03/15/93	03/22/93	6	13
	P.P. Pest/PCBs	03/09/93	03/12/93	03/16/93	3	7
	Dechlorane Plus	03/09/93	03/15/93	03/17/93	6	8
	P.P. Metals	03/09/93		03/16/93		7
FD-1	TCL VOCs	03/09/93		03/11/93		2
	TCL BNAs	03/09/93	03/15/93	03/22/93	6	13
	Dechlorane Plus	03/09/93	03/15/93	03/17/93	6	8
	RCRA Metals *	03/09/93		03/16/93		7
	Sulfate	03/09/93		03/17/93		8
Dup-1 (OW407C)	P.P. VOCs	03/09/93		03/11/93		2
	P.P. BNAs	03/09/93	03/15/93	03/22/93	6	13
	P.P. Pest/PCBs	03/09/93	03/12/93	03/17/93	3	8
	Dechlorane Plus	03/09/93	03/15/93	03/17/93	6	8
	P.P. Metals	03/09/93		03/16/93		7

Notes:

- (1) Metals analysis were performed over several days. The latest analysis date is reported.
* RCRA metals plus aluminum, copper, lead, and zinc.

Key:

- P.P. Priority Pollutant
VOC Volatile Organic Compound
BNA Base/Neutral Acid Extractable
TCL Target Compound List
RCRA Resource Conservation and Recovery Act

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

P.P. VOCs by 624	Detection Limit ($\mu\text{g/L}$)	Blank Conc. ($\mu\text{g/L}$)	Blank Conc. ($\mu\text{g/L}$)
Date Analyzed:		03/09/93	03/11/93
Lab I.D.:		AR007467	AR007480
<i>Compound</i>			
Acrolein	400	ND	ND
Acrylonitrile	400	ND	ND
Benzene	4.4	ND	ND
Bromodichloromethane	2.2	ND	ND
Bromoform	4.7	ND	ND
Bromomethane	10	ND	ND
Carbon tetrachloride	2.8	ND	ND
Chlorobenzene	6.0	ND	ND
Chloroethane	10	ND	ND
2-Chloroethylvinyl ether	10	ND	ND
Chloroform	1.6	ND	ND
Chloromethane	10	ND	ND
Dibromochloromethane	3.1	ND	ND
1,1,-Dichloroethane	4.7	ND	ND
1,2-Dichloroethane	2.8	ND	ND
1,1-Dichloroethene	2.8	ND	ND
1,2-Dichloroethene	1.6	ND	ND
1,2-Dichloropropane	6.0	ND	ND
cis-1,3-Dichloropropene	5.0	ND	ND
trans-1,3-Dichloropropene	5.0	ND	ND
Ethyl benzene	7.2	ND	ND
Methylene chloride	2.8	ND	ND
1,1,2,2-Tetrachloroethane	6.9	ND	ND
Tetrachloroethene	4.1	ND	ND
Toluene	6.0	ND	ND
1,1,1-Trichloroethane	3.8	ND	ND
1,1,2-Trichloroethane	5.0	ND	ND
Trichloroethene	1.9	ND	ND
Vinyl chloride	10	ND	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

P.P. BNAs by 625	Detection Limit ($\mu\text{g/L}$)	Blank Conc. ($\mu\text{g/L}$)	Blank Conc. ($\mu\text{g/L}$)
Date Extracted:		03/10/93	03/15/93
Lab I.D.:		AR007470	AR007481
<i>Compound/Analyte</i>			
Acenaphthene	1.9	ND	ND
Acenaphthylene	3.5	ND	ND
Anthracene	1.9	ND	ND
Benzidine	44	ND	ND
Benzo(a)anthracene	7.8	ND	ND
Benzo(b)fluoranthene	4.8	ND	ND
Benzo(k)fluoranthene	2.5	ND	ND
Benzo(g,h,i)perylene	4.1	ND	ND
Benzo(a)pyrene	2.5	ND	ND
Bis(2-chloroethoxy)methane	5.3	ND	ND
Bis(2-chloroethyl)ether	5.7	ND	ND
Bis(2-chloroisopropyl)ether	5.7	ND	ND
Bis(2-ethylhexyl)phthalate	2.5	ND	ND
4-Bromophenyl phenyl ether	1.9	ND	ND
Butylbenzyl phthalate	2.5	ND	ND
4-Chloro-3-methylphenol	3.0	ND	ND
2-Chloronaphthalene	1.9	ND	ND
2-Chlorophenol	3.3	ND	ND
4-Chlorodiphenylether	4.2	ND	ND
Chrysene	2.5	ND	ND
Dibenzo(a,h)anthracene	2.5	ND	ND
1,3-Dichlorobenzene	1.9	ND	ND
1,2-Dichlorobenzene	1.9	ND	ND
1,4-Dichlorobenzene	4.4	ND	ND
3,3'-Dichlorobenzidine	16	ND	ND
2,4-Dichlorophenol	2.7	ND	ND
Diethyl phthalate	1.9	ND	ND
2,4-Dimethylphenol	2.7	ND	ND
Dimethyl phthalate	1.6	ND	ND
4,6-Dinitro-2-methylphenol	24	ND	ND
1,2-Diphenylhydrazine	10	ND	ND
2,4-Dinitrophenol	42	ND	ND
2,4-Dinitrotoluene	5.7	ND	ND
2,6-Dinitrotoluene	1.9	ND	ND
Di-n-butyl phthalate	2.5	ND	ND
Di-n-octyl phthalate	2.5	ND	ND
Fluoranthene	2.2	ND	ND
Fluorene	1.9	ND	ND
Hexachlorobenzene	1.9	ND	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

P.P. BNAs by 625 (Cont'd.)	Detection	Blank	Blank
	Limit ($\mu\text{g/L}$)	Conc. ($\mu\text{g/L}$)	Conc. ($\mu\text{g/L}$)
Date Extracted:		03/10/93	03/15/93
Lab I.D.:		AR007470	AR007481
Compound/Analyte			
Hexachlorobutadiene	0.9	ND	ND
Hexachlorocyclopentadiene	1.0	ND	ND
Hexachloroethane	1.6	ND	ND
Indeno(1,2,3-cd)pyrene	3.7	ND	ND
Isophorone	2.2	ND	ND
Naphthalene	1.6	ND	ND
Nitrobenzene	1.9	ND	ND
2-Nitrophenol	3.6	ND	ND
4-Nitrophenol	2.4	ND	ND
N-nitrosodimethylamine	2.2	ND	ND
N-nitrosodi-n-propylamine	3.3	ND	ND
N-nitrosodiphenylamine	1.9	ND	ND
Pentachlorophenol	3.6	ND	ND
Phenanthrene	5.4	ND	ND
Phenol	1.5	ND	ND
Pyrene	1.9	ND	ND
1,2,4-Trichlorobenzene	1.9	ND	ND
2,4,6-Trichlorophenol	2.7	ND	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>P.P. Pesticides/PCBs by 608</i>	<i>Detection Limit</i> ($\mu\text{g/L}$)	<i>Blank Conc.</i> ($\mu\text{g/L}$)	<i>Blank Conc.</i> ($\mu\text{g/L}$)
<i>Date Extracted:</i>		03/10/93	03/12/93
<i>Lab I.D.:</i>		AR007472	AR007483
<i>Compound/Analyte</i>			

Aldrin	0.005	ND	ND
alpha-BHC	0.005	ND	ND
beta-BHC	0.005	ND	ND
gamma-BHC	0.005	ND	0.002J
delta-BHC	0.005	ND	ND
Chlordane	0.050	ND	ND
4,4'-DDD	0.010	ND	ND
4,4'-DDE	0.010	ND	ND
4,4'-DDT	0.010	ND	0.006J
Dieldrin	0.010	ND	0.007J
Endosulfan I	0.010	ND	ND
Endosulfan II	0.010	ND	ND
Endosulfan sulfate	0.010	ND	ND
Endrin	0.010	ND	0.008J
Endrin aldehyde	0.010	ND	ND
Heptachlor	0.005	ND	0.001J
Heptachlor epoxide	0.005	ND	ND
Toxaphene	0.10	ND	ND
Aroclor 1016	0.050	ND	ND
Aroclor 1221	0.10	ND	ND
Aroclor 1232	0.050	ND	ND
Aroclor 1242	0.050	ND	ND
Aroclor 1248	0.050	ND	ND
Aroclor 1254	0.050	ND	ND
Aroclor 1260	0.050	ND	ND

<i>Dechlorane Plus by 8080</i>	<i>Detection Limit</i> ($\mu\text{g/L}$)	<i>Blank Conc.</i> ($\mu\text{g/L}$)	<i>Blank Conc.</i> ($\mu\text{g/L}$)
<i>Date Extracted:</i>		03/10/93	03/15/93
<i>Lab I.D.:</i>		AR007471	AR007482
<i>Compound/Analyte</i>			

Dechlorane plus	0.10	ND	ND
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TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>P.P. Metals</i>	<i>Detection Limit</i> (mg/L)	<i>Blank Conc.</i> (mg/L)	<i>Blank Conc.</i> (mg/L)
<i>Mercury Digestion Date:</i>		03/15/93	03/15/93
<i>Remaining Metals Digestion Date:</i>		03/11/93	03/12/93
<i>Lab I.D.:</i>		AR007474	AR007484
<i>Analyte</i>			
Antimony	0.04	ND	ND
Arsenic	0.004	ND	ND
Beryllium	0.005	ND	ND
Cadmium	0.007	ND	ND
Chromium	0.01	ND	ND
Copper	0.01	ND	ND
Lead	0.003	ND	ND
Mercury	0.0004	ND	ND
Nickel	0.02	ND	ND
Selenium	0.004	ND	ND
Silver	0.01	ND	ND
Thallium	0.005	ND	ND
Zinc	0.01	ND	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

TCL VOCs by 8240	Detection	Blank	Blank
	Limit ($\mu\text{g/L}$)	Conc. ($\mu\text{g/L}$)	Conc. ($\mu\text{g/L}$)
Date Analyzed:		03/11/93	03/11/93
Lab I.D.:		AR007480	AR007439
Compound			
Acetone	10	ND	ND
Benzene	5	ND	ND
Bromodichloromethane	5	ND	ND
Bromoform	5	ND	ND
Bromomethane	10	ND	ND
2-Butanone	10	ND	ND
Carbon disulfide	5	ND	ND
Carbon tetrachloride	5	ND	ND
Chlorobenzene	5	ND	ND
Chloroethane	10	ND	ND
Chloroform	5	ND	ND
Chloromethane	10	ND	ND
Dibromochloromethane	5	ND	ND
1,1-Dichloroethane	5	ND	ND
1,2-Dichloroethane	5	ND	ND
1,1-Dichloroethene	5	ND	ND
1,2-Dichloroethene	5	ND	ND
1,2-Dichloropropane	5	ND	ND
cis-1,3-Dichloropropene	5	ND	ND
trans-1,3-Dichloropropene	5	ND	ND
Ethyl benzene	5	ND	ND
2-Hexanone	10	ND	ND
Methylene chloride	5	ND	ND
4-Methyl-2-pentanone	10	ND	ND
Styrene	5	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND
Tetrachloroethene	5	ND	ND
Toluene	5	ND	ND
1,1,1-Trichloroethane	5	ND	ND
1,1,2-Trichloroethane	5	ND	ND
Trichloroethene	5	ND	ND
Vinyl acetate	10	ND	ND
Vinyl chloride	10	ND	ND
Total Xylenes	5	ND	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

TCL BNAs by 8270	Detection Limit ($\mu\text{g/L}$)	Blank Conc. ($\mu\text{g/L}$)
Date Analyzed:		03/15/93
Lab I.D.:		AR007481
Compound		
Acenaphthene	10	ND
Acenaphthylene	10	ND
Anthracene	10	ND
Benzo(a)anthracene	10	ND
Benzo(b)fluoranthene	10	ND
Benzo(k)fluoranthene	10	ND
Benzo(g,h,i)perylene	10	ND
Benzo(a)pyrene	10	ND
Benzoic acid	50	ND
Benzyl alcohol	10	ND
Bis(2-chloroethoxy)methane	10	ND
Bis(2-chloroethyl)ether	10	ND
Bis(2-chloroisopropyl)ether	10	ND
Bis(2-ethylhexyl)phthalate	10	ND
4-Bromophenyl phenyl ether	10	ND
Butylbenzyl phthalate	10	ND
4-Chloroaniline	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chloronaphthalene	10	ND
2-Chlorophenol	10	ND
4-Chlorodiphenylether	10	ND
Chrysene	10	ND
Dibenzo(a,h)anthracene	10	ND
Dibenzofuran	10	ND
Di-n-butyl phthalate	10	ND
1,2-Dichlorobenzene	10	ND
1,3-Dichlorobenzene	10	ND
1,4-Dichlorobenzene	10	ND
3,3'-Dichlorobenzidine	20	ND
2,4-Dichlorophenol	10	ND
Diethyl phthalate	10	ND
2,4-Dimethylphenol	10	ND
Dimethyl phthalate	10	ND
4,6-Dinitro-2-methylphenol	50	ND
2,4-Dinitrophenol	50	ND
2,4-Dinitrotoluene	10	ND
2,6-Dinitrotoluene	10	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

<i>TCL BNAs by 8270 (cont.)</i>	<i>Detection Limit</i> ($\mu\text{g/L}$)	<i>Blank Conc.</i> ($\mu\text{g/L}$)
<i>Date Analyzed:</i>		03/15/93
<i>Lab I.D.:</i>		AR007481
<i>Compound</i>		
Di-n-octyl phthalate	10	ND
Fluoranthene	10	ND
Fluorene	10	ND
Hexachlorobenzene	10	ND
Hexachlorobutadiene	10	ND
Hexachlorocyclopentadiene	10	ND
Hexachloroethane	10	ND
Indeno(1,2,3-cd)pyrene	10	ND
Isophorone	10	ND
2-Methylnaphthalene	10	ND
2-Methylphenol	10	ND
4-Methylphenol	10	ND
Naphthalene	10	ND
2-Nitroaniline	50	ND
3-Nitroaniline	50	ND
4-Nitroaniline	50	ND
Nitrobenzene	10	ND
2-Nitrophenol	10	ND
4-Nitrophenol	50	ND
N-nitrosodiphenylamine	10	ND
N-nitrosodi-n-propylamine	10	ND
Pentachlorophenol	50	ND
Phenanthrene	10	ND
Phenol	10	ND
Pyrene	10	ND
1,2,4-Trichlorobenzene	10	ND
2,4,5-Trichlorophenol	50	ND
2,4,6-Trichlorophenol	10	ND

TABLE 4
METHOD BLANK DATA SUMMARY
AMERICAN REF-FUEL RRF
MARCH 1993

RCRA Metals	Detection Limit (mg/L)	Blank Conc. (mg/L)
Mercury Digestion Date:	03/15/93	
Remaining Metals Digestion Date:	03/11/93	
Lab I.D.:	AR007445	

<i>Analyte</i>		
Aluminum	0.1	ND
Arsenic	0.004	ND
Barium	0.02	ND
Cadmium	0.007	ND
Chromium	0.01	ND
Copper	0.01	ND
Lead	0.003	ND
Mercury	0.0002	ND
Nickel	0.02	ND
Selenium	0.004	ND
Silver	0.01	ND
Zinc	0.01	ND

Wet Chemistry Parameters	Detection Limit (mg/L)	Blank Conc. (mg/L)	Blank Conc. (mg/L)
Date Analyzed:		03/17/93	03/17/93
Lab I.D.:		AR007475	AR007485

Compound/Analyte

Sulfate	1.0	ND	ND
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Notes:

ND Non-detect at or above the detection limit.

Key:

- P.P. Priority Pollutant
- VOC Volatile Organic Compound
- BNA Base/Neutral Acid Extractable
- PCB Polychlorinated Biphenyl
- TCL Target Compound List
- RCRA Resource Conservation and Recovery Act

TABLE 5
SURROGATE PERCENT RECOVERIES
AMERICAN REF-FUEL RRF
MARCH 1993

VOCs	<i>Toluene-d8</i>	<i>Bromofluorobenzene</i>	<i>1,2,-Dichloroethane-d4</i>				
Sample ID							
OW653	91	85 *	99				
OW407C	84 *	86	100				
OW650	101	101	102				
FD-1	113 *	121 *	105				
Dup-1	87 *	87	104				
BNA	<i>Nitrobenzene-D5</i>	<i>2-Fluorobiphenyl</i>	<i>Terphenyl-D14</i>	<i>Phenol-D5</i>	<i>2-Fluorophenol</i>	<i>2,4,6-Tribromophenol</i>	
Sample ID							
OW653	82	77	93	45	65	97	
OW407C	59	56	81	36	56	89	
OW650	81	78	65	34	55	67	
FD-1	63	59	76	33	57	85	
Dup-1	59	57	78	29	52	78	
Pesticide/PCBs	<i>Dibutylchlorendate</i>						
Sample ID							
OW653	81						
OW407C	68						
OW650	60						
Dup-1	66						

Notes:

* Surrogate recovery outside of method control limits.

Key:

VOC Volatile Organic Compound
BNA Base/Neutral Acid Extractable

TABLE 6
QUALIFIED DATA DUE TO OUTLYING VOC SURROGATE RECOVERIES
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Sample ID</i>	<i>Surrogate</i>	<i>Surrogate Recovery (Percent)</i>	<i>Control Limits (Percent)</i>	<i>Qualifier (1)</i>
OW407C	Toluene d8	84	88-110	J
Dup-1	Toluene d8	87	88-110	J
OW653	Bromofluorobenzene	85	86-115	J

Notes:

- (1) Qualifier applied to all positive VOC results for the associated samples.
J Estimated at the associated value.

Key:

VOC Volatile Organic Compound

TABLE 7
 INTERNAL STANDARD PERCENT RECOVERIES
 AMERICAN REF-FUEL RRF
 MARCH 1993

VOCs Sample ID	<i>Bromochloromethane</i>	<i>1,4-Difluorobenzene</i>	<i>Chlorobenzene-D5</i>				
BNAs Sample ID	<i>Phenanthrene-D10</i>	<i>Chrysene-D12</i>	<i>Perylene-D12</i>	<i>1,4-Dichlorobenzene-D4</i>	<i>Naphthalene-D8</i>	<i>Acenaphthene-D10</i>	
OW653	99	104	118				
OW407C	88	88	102				
OW650	95	96	93				
FD-1	84	85	74				
Dup-1	89	91	103				
OW653	94	84	75	83	83	92	
OW407C	119	107	107	115	105	117	
OW650	123	97	94	123	110	121	
FD-1	127	100	100	120	112	129	
Dup-1	131	108	106	139	119	129	

Key:

VOC Volatile Organic Compound
 BNA Base/Neutral Acid Extractable

TABLE 8
LABORATORY CONTROL SAMPLE ANALYSIS RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

Parameter	Analysis Date	Percent Recovery
Sulfate	3/17/93	110
Sulfate	3/17/93	115
Sulfate	3/17/93	110

TABLE 9
TRIP BLANK RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

TCL VOCs by 8240	Detection Limit <i>(µg/L)</i>	Trip Blank Conc. <i>(µg/L)</i>
<i>Compounds</i>	<i>Sampled 03/08/93</i>	
Acetone	10	ND
Benzene	5	ND
Bromodichloromethane	5	ND
Bromoform	5	ND
Bromomethane	10	ND
2-Butanone	10	ND
Carbon disulfide	5	ND
Carbon tetrachloride	5	ND
Chlorobenzene	5	ND
Chloroethane	10	ND
Chloroform	5	ND
Chloromethane	10	ND
Dibromochloromethane	5	ND
1,1-Dichloroethane	5	ND
1,2-Dichloroethane	5	ND
1,1-Dichloroethene	5	ND
1,2-Dichloroethene	5	ND
1,2-Dichloropropane	5	ND
cis-1,3-Dichloropropene	5	ND
trans-1,3-Dichloropropene	5	ND
Ethyl benzene	5	ND
2-Hexanone	10	ND
Methylene chloride	5	ND
4-Methyl-2-pentanone	10	ND
Styrene	5	ND
1,1,2,2-Tetrachloroethane	5	ND
Tetrachloroethene	5	ND
Toluene	5	ND
1,1,1-Trichloroethane	5	ND
1,1,2-Trichloroethane	5	ND
Trichloroethene	5	ND
Vinyl acetate	10	ND
Vinyl chloride	10	ND
Total xylenes	5	ND

Notes:

ND Non-detect at or above the detection limit.

Key:

TCL Target Compound List
VOC Volatile Organic Compound

TABLE 10
FIELD DUPLICATE RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

<i>P.P. VOCs by 624</i> <i>Compounds</i>	<i>Detection</i>	<i>OW407C</i> (<i>µg/L</i>)	<i>Dup-1</i> (<i>µg/L</i>)	<i>RPD</i>
	<i>Limit</i> (<i>µg/L</i>)			
Acrolein	400	ND	ND	*
Acrylonitrile	400	ND	ND	*
Benzene	4.4	48	48	0
Bromodichloromethane	2.2	ND	ND	*
Bromoform	4.7	ND	ND	*
Bromomethane	10	ND	ND	*
Carbon tetrachloride	2.8	ND	ND	*
Chlorobenzene	6	130	130	0
Chloroethane	10	ND	ND	*
2-Chloroethylvinyl ether	10	ND	ND	*
Chloroform	1.6	ND	ND	*
Chloromethane	10	ND	ND	*
Dibromochloromethane	3.1	ND	ND	*
1,1,-Dichloroethane	4.7	ND	ND	*
1,2-Dichloroethane	2.8	ND	ND	*
1,1-Dichloroethene	2.8	ND	ND	*
1,2-Dichloroethene	1.6	51	54	6
1,2-Dichloropropane	6	ND	ND	*
cis-1,3-Dichloropropene	5	ND	ND	*
trans-1,3-Dichloropropene	5	ND	ND	*
Ethyl benzene	7.2	ND	ND	*
Methylene chloride	2.8	ND	ND	*
1,1,2,2-Tetrachloroethane	6.9	ND	ND	*
Tetrachloroethene	4.1	ND	ND	*
Toluene	6	ND	ND	*
1,1,1-Trichloroethane	3.8	ND	ND	*
1,1,2-Trichloroethane	5	ND	ND	*
Trichloroethene	1.9	ND	2.6	*
Vinyl chloride	10	130	130	0

TABLE 10
FIELD DUPLICATE RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

P.P. BNAs by 625	Detection Limit ($\mu\text{g/L}$)	OW407C ($\mu\text{g/L}$)	Dup-1 ($\mu\text{g/L}$)	RPD
Compounds				
Acenaphthene	1.9	ND	ND	*
Acenaphthylene	3.5	ND	ND	*
Anthrcaene	1.9	ND	ND	*
Benzidine	44	ND	ND	*
Benzo(a)anthracene	7.8	ND	ND	*
Benzo(b)fluoranthene	4.8	ND	ND	*
Benzo(k)fluoranthene	2.5	ND	ND	*
Benzo(g,h,i)perylene	4.1	ND	ND	*
Benzo(a)pyrene	2.5	ND	ND	*
Bis(2-chloroethoxy)methane	5.3	ND	ND	*
Bis(2-chloroethyl)ether	5.7	ND	ND	*
Bis(2-chloroisopropyl)ether	5.7	ND	ND	*
Bis(2-ethylhexyl)phthalate	2.5	ND	ND	*
4-Bromophenyl phenyl ether	1.9	ND	ND	*
Butylbenzyl phthalate	2.5	ND	ND	*
4-Chloro-3-methylphenol	3	ND	ND	*
2-Chloronaphthalene	1.9	ND	ND	*
2-Chlorophenol	3.3	ND	ND	*
4-Chlorodiphenylether	4.2	ND	ND	*
Chrysene	2.5	ND	ND	*
Dibenzo(a,h)anthracene	2.5	ND	ND	*
1,3-Dichlorobenzene	1.9	7.4	ND	*
1,2-Dichlorobenzene	1.9	5.9	ND	*
1,4-Dichlorobenzene	4.4	7	ND	*
3,3'-Dichlorobenzidine	16	ND	ND	*
2,4-Dichlorophenol	2.7	ND	ND	*
Diethyl phthalate	1.9	ND	ND	*
2,4-Dimethylphenol	2.7	ND	ND	*
Dimethyl phthalate	1.6	ND	ND	*
4,6-Dinitro-2-methylphenol	24	ND	ND	*
1,2-Diphenylhydrazine	10	ND	ND	*
2,4-Dinitrophenol	42	ND	ND	*
2,4-Dinitrotoluene	5.7	ND	ND	*
2,6-Dinitrotoluene	1.9	ND	ND	*
Di-n-butyl phthalate	2.5	ND	ND	*
Di-n-octyl phthalate	2.5	ND	ND	*
Fluoranthene	2.2	ND	ND	*

TABLE 10
FIELD DUPLICATE RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

P.P. BNAs by 625 (cont.)

<i>Compounds</i>	<i>Detection Limit</i> ($\mu\text{g/L}$)	<i>OW407C</i> ($\mu\text{g/L}$)	<i>Dup-1</i> ($\mu\text{g/L}$)	<i>RPD</i>
Fluorene	1.9	ND	ND	*
Hexachlorobenzene	1.9	ND	ND	*
Hexachlorobutadiene	0.9	ND	ND	*
Hexachlorocyclopentadiene	1	ND	ND	*
Hexachloroethane	1.6	ND	ND	*
Indeno(1,2,3-cd)pyrene	3.7	ND	ND	*
Isophorone	2.2	ND	ND	*
Naphthalene	1.6	ND	ND	*
Nitrobenzene	1.9	ND	ND	*
2-Nitrophenol	3.6	ND	ND	*
4-Nitrophenol	2.4	ND	ND	*
N-nitrosodimethylamine	2.2	ND	ND	*
N-nitrosodi-n-propylamine	3.3	ND	ND	*
N-nitrosodiphenylamine	1.9	ND	ND	*
Pentachlorophenol	3.6	ND	ND	*
Phenanthrene	5.4	ND	ND	*
Phenol	1.5	ND	ND	*
Pyrene	1.9	ND	ND	*
1,2,4-Trichlorobenzene	1.9	ND	ND	*
2,4,6-Trichlorophenol	2.7	ND	ND	*

P.P. Pest/PCBs by 608

<i>Compounds</i>	<i>Detection Limit</i> ($\mu\text{g/L}$)	<i>OW407C</i> ($\mu\text{g/L}$)	<i>Dup-1</i> ($\mu\text{g/L}$)	<i>RPD</i>
Aldrin	0.005	ND	0.015	*
alpha-BHC	0.005	0.034	ND	*
beta-BHC	0.005	ND	ND	*
gamma-BHC	0.005	ND	ND	*
delta-BHC	0.005	ND	ND	*
Chlordane	0.05	ND	ND	*
4,4'-DDD	0.01	ND	ND	*
4,4'-DDE	0.01	ND	ND	*
4,4'-DDT	0.01	ND	ND	*
Dieldrin	0.01	ND	ND	*
Endosulfan I	0.01	ND	ND	*

TABLE 10
FIELD DUPLICATE RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

<i>P.P. Pest/PCBs by 608 (cont.)</i>	<i>Detection Limit</i> ($\mu\text{g}/\text{L}$)	<i>OW407C</i> ($\mu\text{g}/\text{L}$)	<i>Dup-1</i> ($\mu\text{g}/\text{L}$)	<i>RPD</i>
<i>Compounds</i>				
Endosulfan II	0.01	ND	ND	*
Endosulfan sulfate	0.01	ND	ND	*
Endrin	0.01	ND	ND	*
Endrin aldehyde	0.01	ND	ND	*
Heptachlor	0.005	ND	ND	*
Heptachlor epoxide	0.005	ND	ND	*
Toxaphene	0.1	ND	ND	*
Aroclor 1016	0.05	ND	ND	*
Aroclor 1221	0.1	ND	ND	*
Aroclor 1232	0.05	ND	ND	*
Aroclor 1242	0.05	ND	ND	*
Aroclor 1248	0.05	ND	ND	*
Aroclor 1254	0.05	ND	ND	*
Aroclor 1260	0.05	ND	ND	*
<i>Dechlorane Plus</i>	<i>Detection Limit</i> ($\mu\text{g}/\text{L}$)	<i>OW407C</i> ($\mu\text{g}/\text{L}$)	<i>Dup-1</i> ($\mu\text{g}/\text{L}$)	<i>RPD</i>
<i>Analytes</i>				
Dechlorane Plus	0.10	ND	ND	*

TABLE 10
FIELD DUPLICATE RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

P.P. Metals	Detection			
Analytes	Limit (mg/L)	OW407C (mg/L)	Dup-1 (mg/L)	RPD
Antimony	0.04	ND	ND	*
Arsenic	0.004	ND	ND	*
Beryllium	0.005	ND	ND	*
Cadmium	0.007	ND	ND	*
Chromium	0.01	0.016	ND	*
Copper	0.01	0.017	0.018	6
Lead	0.003	0.003	0.003	0
Mercury	0.0002	ND	ND	*
Nickel	0.02	ND	ND	*
Selenium	0.005	0.008	0.01	22**
Silver	0.01	ND	ND	*
Thallium	0.005	ND	ND	*
Zinc	0.01	0.01	0.018	57**

Notes:

* RPD value could not be calculated due to one or more non-detect results.

** RPD value above acceptable limit of 20 percent.

ND Non-detect at or above the detection limit.

Key:

RPD Relative Percent Difference

TABLE 11
QUALIFIED DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
AMERICAN REF-FUEL RRF
MARCH 1993

<i>Parameter</i>	<i>Compound</i>	<i>OW407C Conc.</i> (mg/L)	<i>Dup-1 Conc.</i> (mg/L)	<i>RPD</i>	<i>Qualifier (1)</i>
Metals	Selenium	0.008	0.01	22	J
	Zinc	0.01	0.018	57	J

Notes:

J Associated value is estimated.

(1) Qualifier is applied to both original and duplicate results.